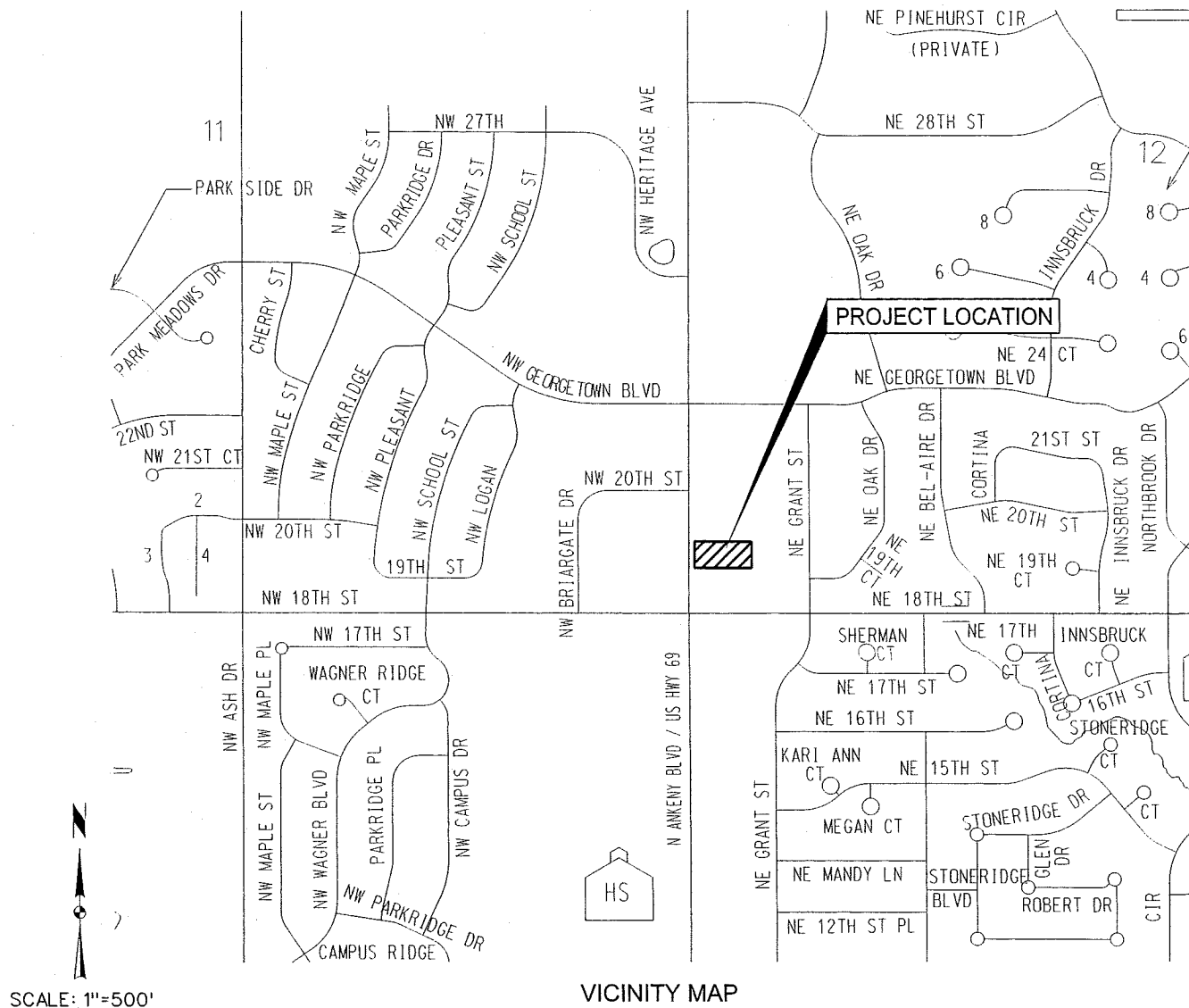


SITE PLAN
FOR
NORTHPOINTE VILLAGE CENTER PLAT 1, LOT 2
1875 NORTH ANKENY BLVD
CITY OF ANKENY, IOWA

OWNER/DEVELOPER

DRA PROPERTIES, L.C.
1515 NE 36TH STREET
ANKENY, IOWA 50021
CONTACT: TED RAPP
(515) 964-9444



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LEGEND

Features	Existing	Proposed
Spot Elevation	93.0	93.0
Contour Elevation	93	93
Fence (Barbed, Field, Hog)	-x-x-	-x-x-
Fence (Chain Link)	-x-x-	-x-x-
Fence (Wood)	-x-x-	-x-x-
Fence (Silt)	-x-x-	-x-x-
Tree Line	-x-x-	-x-x-
Tree Stump	-x-x-	-x-x-
Deciduous Tree \ Shrub	○	○
Coniferous Tree \ Shrub	⊗	⊗
Communication	---C(x)---	---C---
Overhead Communication	---OC(x)---	---OC---
Fiber Optic	---FO(x)---	---FO---
Underground Electric	---E(x)---	---E---
Overhead Electric	---OE(x)---	---OE---
Gas Main with Size	---4" G(x)---	---4" G---
High Pressure Gas Main with Size	---4" HPG(x)---	---4" HPG---
Water Main with Size	---8" W(x)---	---8" W---
Sanitary Sewer with Size	---8" S(x)---	---8" S---
Duct Bank	---DUCT(x)---	---DUCT---
Test Hole Location for SUE w/D	⊙	⊙
(x) Denotes the survey quality service level for utilities		
Sanitary Manhole	12" ST	12" ST
Storm Sewer with Size	○	○
Storm Manhole	○	○
Single Storm Sewer Intake	○	○
Double Storm Sewer Intake	○	○
Fire Hydrant	○	○
Fire Hydrant on Building	○	○
Water Main Valve	○	○
Water Service Valve	○	○
Well	○	○
Utility Pole	○	○
Guy Anchor	○	○
Utility Pole with Light	○	○
Utility Pole with Transformer	○	○
Street Light	○	○
Yard Light	○	○
Electric Box	○	○
Electric Transformer	○	○
Traffic Sign	○	○
Communication Pedestal	○	○
Communication Manhole	○	○
Communication Handhole	○	○
Fiber Optic Manhole	○	○
Fiber Optic Handhole	○	○
Gas Valve	○	○
Gas Manhole	○	○
Gas Apparatus	○	○
Fence Post or Guard Post	○	○
Underground Storage Tank	○	○
Above Ground Storage Tank	○	○
Sign	○	○
Satellite Dish	○	○
Mailbox	○	○
Soil Boring	○	○
Truncated Dome	○	○

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESSES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI/ ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

UTILITY CONTACT INFORMATION

W1-WATER	CITY OF ANKENY KEN PLAGER 515-965-6484 kplager@ankenyiowa.gov
C1-COMMUNICATION	CENTURYLINK RAY MONTOYA 515-263-7385 ray.montoya@centurylink.com
E1-ELECTRIC	MIDAMERICAN ENERGY THERESA MCGUIRE 515-281-2260 tmmcguire@midamerican.com
C2-COMMUNICATION	MEDIACOM COMMUNICATIONS CORP PAUL MAY 515-246-2252 pmay@mediacomcc.com

GENERAL NOTES

- NOTIFY UTILITY PROVIDERS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES AND COORDINATE WITH UTILITY PROVIDERS AS NECESSARY DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION, AND DEPTH OF ALL UTILITIES. PROTECT ALL UTILITY LINES AND STRUCTURES NOT SHOWN FOR REMOVAL OR MODIFICATION. ANY DAMAGES TO UTILITY ITEMS NOT SHOWN FOR REMOVAL OR MODIFICATION SHALL BE REPAIRED TO THE UTILITY OWNER'S SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
- CONSTRUCTION OF ALL STREET AND UTILITY IMPROVEMENTS SHALL CONFORM TO THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE SOILS REPORTS PREPARED BY OTHERS.
- LENGTH OF UTILITIES SHOWN ON PLANS ARE DIMENSIONED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE.
- ALL TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). WHEN CONSTRUCTION ACTIVITIES OBSTRUCT PORTIONS OF THE ROADWAY, FLAGGERS SHALL BE PROVIDED. FLAGGERS SHALL CONFORM TO THE MUTCD IN APPEARANCE, EQUIPMENT AND ACTIONS.
- NOTIFY OWNER, ENGINEER, DES MOINES WATER WORKS, AND CITY OF ANKENY PUBLIC WORKS AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- CONSTRUCT MANHOLES AND APPURTENANCES AS WORK PROGRESSES. BACKFILL WITH SUITABLE MATERIAL AND COMPACT TO 95% MAXIMUM DENSITY.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
- ALL FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE RECONNECTED AND NOTED ACCORDINGLY ON THE AS-BUILT DOCUMENTS.
- DIMENSIONS, BUILDING LOCATION, UTILITIES AND GRADING OF THIS SITE ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. DEVIATIONS MAY BE NECESSARY IN THE FIELD. ANY SUCH CHANGES OR CONFLICTS BETWEEN THIS PLAN AND FIELD CONDITIONS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT VERIFICATION OF ALL SITE IMPROVEMENTS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO LOAD AND TRANSPORT ALL MATERIALS CONSIDERED TO BE UNDESIRABLE TO BE INCORPORATED INTO THE PROJECT TO AN APPROVED OFF-SITE WASTE SITE.
- CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL FROM ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AND/OR TOP OF PAVING SLAB (GUTTER), UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM NEIGHBORING STREETS, DRIVEWAYS, AND SIDEWALKS CAUSED BY CONSTRUCTION ACTIVITIES IN A TIMELY MANNER.
- THE ADJUSTMENT OF ANY EXISTING UTILITY APPURTENANCES TO FINAL GRADE IS CONSIDERED INCIDENTAL TO THE SITE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION CONTROL MEASURES AS NECESSARY. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING ANY EXISTING EROSION CONTROL MEASURES ON SITE AT THE TIME OF CONSTRUCTION. GRADING AND SOIL EROSION CONTROL CODE REQUIREMENTS SHALL BE MET BY CONTRACTOR. A GRADING PERMIT IS REQUIRED FOR THIS PROJECT.
- CONTRACTOR TO COORDINATE NATURAL GAS, ELECTRICAL, TELEPHONE AND ANY OTHER FRANCHISE UTILITY SERVICES WITH UTILITY SERVICE PROVIDER, CITY OF ANKENY, AND THE OWNER PRIOR TO CONSTRUCTION.
- CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS AND MAINTAIN MINIMUM 18" VERTICAL AND HORIZONTAL CLEARANCE BETWEEN UTILITIES. CONTRACTOR TO COORDINATE UTILITY ROUTING TO BUILDING AND VERIFY CONNECTION LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION.

BENCHMARKS

- NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
IARTN DERIVED - US SURVEY FEET
BM1 ELEVATION=948.67
ARROW BOLT ON HYDRANT WEST SIDE OF SITE, BETWEEN ANKENY BLVD AND FRONTAGE ROAD.
BM2 ELEVATION=944.35
ARROW BOLT ON HYDRANT NORTHWEST OF TANNER'S BAR IN MEDIAN.

CONTROL POINTS

- IOWA STATE PLANE SOUTH COORDINATE SYSTEM
NAD83(2011)(EPOCH 2010.00)
IARTN DERIVED - US SURVEY FEET
CP1 N=636537.10 E=1613098.65
CUT "X" IN SIDEWALK WEST OF KUM & GO, IN LINE WITH NORTH LINE OF BUILDING. AS SHOWN ON SURVEY.
CP2 N=636929.33 E=1613091.29
CUT "X" IN CONCRETE OF STORM MANHOLE, SOUTHEAST CORNER OF ANKENY BLVD AND NW 2ND ST, ± 3' FROM WEST EDGE OF SIDEWALK, ± 2' SOUTH OF CENTER OF MANHOLE. AS SHOWN ON SURVEY.
CP3 N=636793.47 E=1613442.67
CUT "X" IN BACK OF CURB OF MEDIAN IN TANNER'S BAR PARKING LOT, ± 3' NORTH OF HYDRANT. AS SHOWN ON SURVEY.
CP4 N=636535.76 E=1613445.18
CUT "X" TOP OF CURB WEST OF T'S NAILS, ± 10' NORTHEAST OF LIGHT POLE, IN LINE WITH NORTH BUILDING LINE OF KUM & GO. AS SHOWN ON SURVEY.

ZONING

C-2 W/ RESTRICTIONS
GENERAL RETAIL, HIGHWAY ORIENTED, AND CENTRAL BUSINESS COMMERCIAL DISTRICT

PROPERTY DESCRIPTION

LOT 2, NORTHPOINTE VILLAGE CENTER PLAT 1 BEING AN OFFICIAL PLAT NOW INCLUDED IN AND FORMING A PART OF THE CITY OF ANKENY, POLK COUNTY, IOWA.

PROPERTY ADDRESS

1875 NORTH ANKENY BLVD
ANKENY, IOWA 50021

BUILDING DESCRIPTION

TOTAL BUILDING HEIGHT= 17.0'
FLOOR SF= 10,220 SF

PARKING REQUIREMENTS:

1 SPACE PER 100 SF OF RESTAURANT
1,800 SF/100 = 18 SPACES REQUIRED
1 SPACE PER 200 SF OF GENERAL RETAIL
8,420 SF/200 = 43 SPACES REQUIRED
61 TOTAL SPACES REQUIRED
62 SPACES TOTAL PROVIDED
(INCLUDING 3 ACCESSIBLE STALLS)

ERU CALCULATION

TOTAL IMPERVIOUS AREA / 4000
39,876 / 4,000 = 10 ERU'S

STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310, OR APPROVED EQUAL.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CRISP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
 - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4"-2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

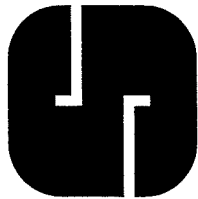
- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-780 CONSTRUCTION GUIDE".
 - THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/SC-780 CONSTRUCTION GUIDE".
 - FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.
- USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.
- CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

NORTHPOINTE VILLAGE CENTER PLAT 1 LOT 2

PROJECT INFORMATION

ANKENY, IOWA

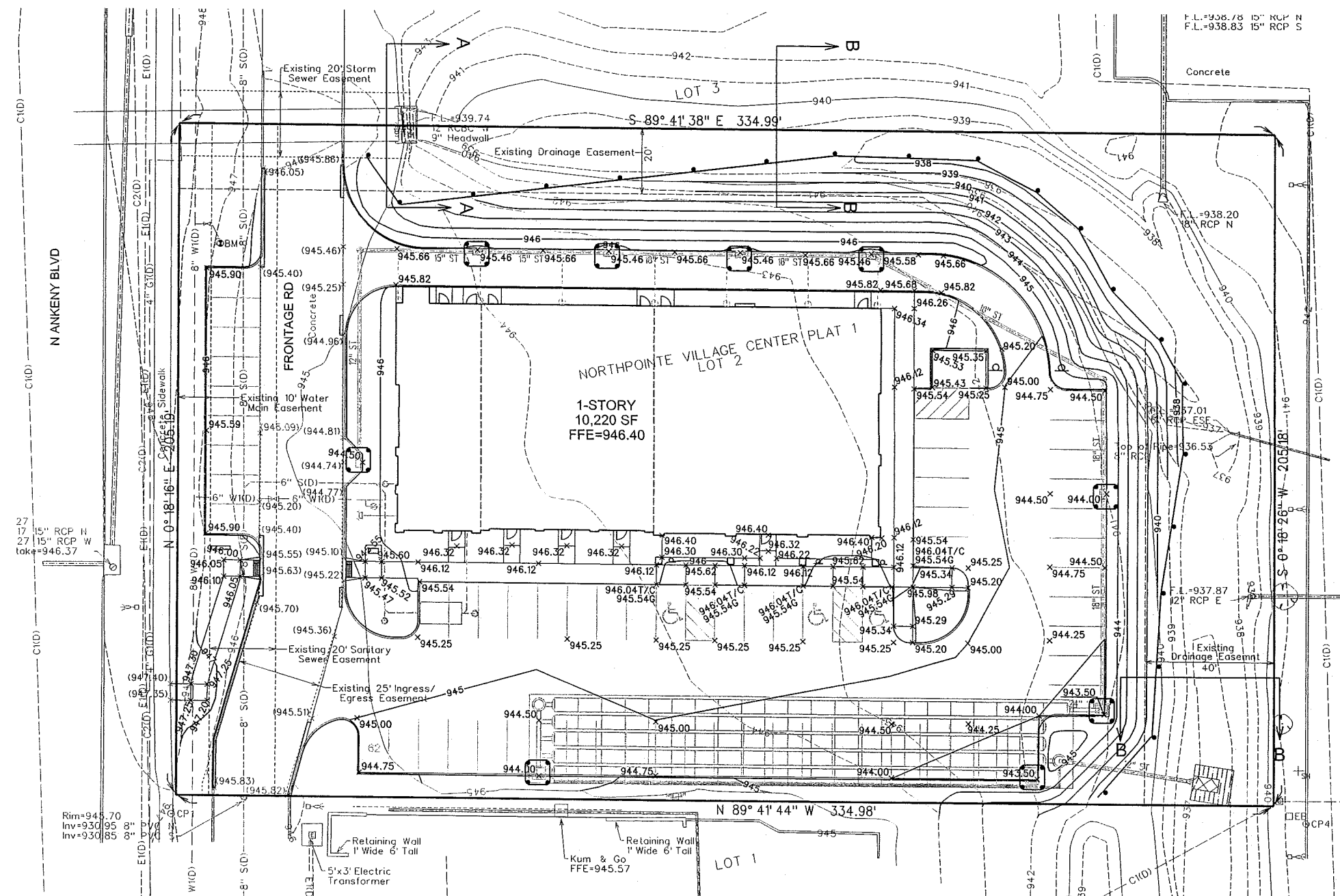
SNYDER & ASSOCIATES, INC. | 2727 S.W. SNYDER BLVD.
ANKENY, IOWA 50023
515-964-2020 | www.snyder-associates.com



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GRADING NOTES

- CONTRACTOR TO STRIP AND STOCKPILE TOPSOIL ON ALL AREAS TO BE CUT OR FILLED. RESPREAD TO MINIMUM 6" DEPTH TO FINISH GRADES.
- ANY EXCESS CUT TO BE SPREAD ON SITE AS DIRECTED BY ENGINEER DURING CONSTRUCTION. PLACE TOPSOIL OVER ALL AREAS DISTURBED.
- ALL DRAINAGE SWALES AND SLOPES 5 TO 1 OR GREATER TO BE SEEDED USING COMMERCIALY AVAILABLE EROSION CONTROL SEED. MIXTURE APPLIED AT RATE RECOMMENDED BY SUPPLIER.
- EROSION CONTROL: SEED THE SITE AFTER ROUGH GRADING HAS BEEN COMPLETED. PLACE SILT FENCE AND MAINTAIN IN PROBLEM AREAS AFTER GROUND COVER HAS BEEN ESTABLISHED. COMPLY WITH EROSION CONTROL LAW.

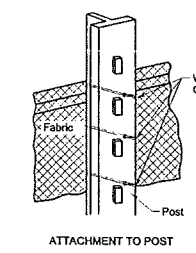
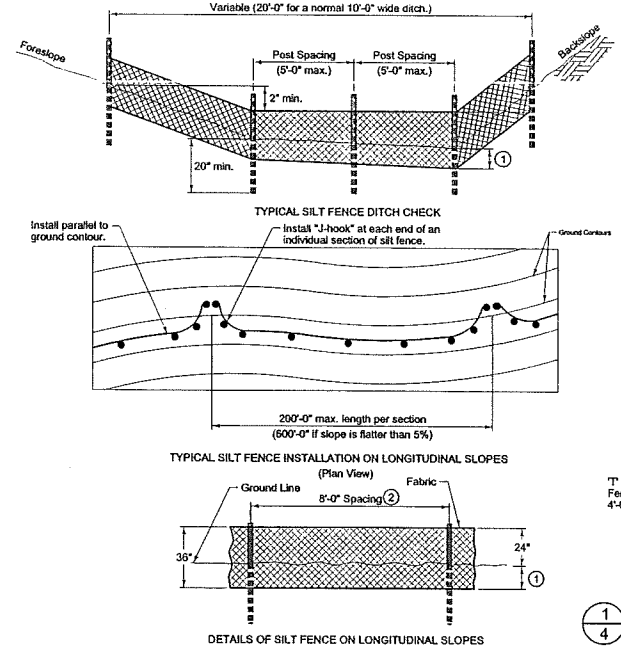
BENCHMARKS

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 - GEOID12A)
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ARROW BOLT ON HYDRANT WEST SIDE OF SITE, BETWEEN ANKENY BLVD AND FRONTAGE ROAD.
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ARROW BOLT ON HYDRANT NORTHWEST OF TANNER'S BAR IN MEDIAN.

TYPICAL DRAINAGE SWALE SECTION A-A

* MAINTAIN CROSS SECTION AS PER NORTHPOINTE VILLAGE CENTER PLAT 1 CONSTRUCTION DOCUMENTS, APPROVED BY THE CITY OF ANKENY AUGUST 9, 2004.

TYPICAL DRAINAGE SWALE SECTION B-B



1 SILT FENCE

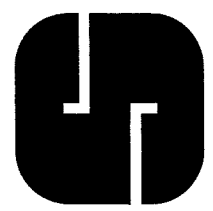
POLLUTION PREVENTION NOTES

- A. POLLUTION PREVENTION AND EROSION PROTECTION**
- CODE COMPLIANCE: THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL POTENTIAL POLLUTION AND SOIL EROSION CONTROL REQUIREMENTS OF THE IOWA CODE, THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) NPDES PERMIT, THE U.S. CLEAN WATER ACT AND ANY LOCAL ORDINANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT AGAINST EROSION AND POLLUTION FROM THIS PROJECT SITE AND ALL OFF-SITE BORROW OR DEPOSIT AREAS DURING PERFORMANCE OR AS A RESULT OF PERFORMANCE.
 - DAMAGE CLAIMS: THE CONTRACTOR WILL HOLD THE OWNER AND ARCHITECT / ENGINEER HARMLESS FROM ANY AND ALL CLAIMS OF ANY TYPE WHATSOEVER RESULTING FROM DAMAGES TO ADJOINING PUBLIC OR PRIVATE PROPERTY, INCLUDING REASONABLE ATTORNEY FEES INCURRED TO OWNER. FURTHER, IF THE CONTRACTOR FAILS TO TAKE NECESSARY STEPS TO PROMPTLY REMOVE EARTH SEDIMENTATION OR DEBRIS WHICH COMES ONTO ADJOINING PUBLIC OR PRIVATE PROPERTY, THE OWNER MAY, BUT NEED NOT, REMOVE SUCH ITEMS AND DEDUCT THE COST THEREOF FROM AMOUNTS DUE TO THE CONTRACTOR.
- B. STORM WATER DISCHARGE PERMIT**
- THIS PROJECT REQUIRES COVERAGE UNDER THE NPDES GENERAL PERMIT NO. 2 FOR DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE IDNR, AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH AND FULFILLMENT OF ALL REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. 2 INCLUDING CREATING OR MAINTAINING THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND POSSIBLY OBTAINING THE GENERAL PERMIT COVERAGE FROM THE IDNR.
 - ALL DOCUMENTS RELATED TO THE STORM WATER DISCHARGE PERMIT, INCLUDING, BUT NOT LIMITED TO, THE NOTICE OF INTENT, PROOF OF PUBLICATIONS, DISCHARGE AUTHORIZATION LETTER, CURRENT SWPPP, SITE INSPECTION LOG, AND OTHER ITEMS, SHALL BE KEPT ON SITE AT ALL TIMES AND MUST BE PRESENTED TO ANY JURISDICTIONAL AGENCIES UPON REQUEST. FAILURE TO COMPLY WITH THE NPDES PERMIT REQUIREMENTS IS A VIOLATION OF THE CLEAN WATER ACT AND THE CODE OF IOWA.
 - A "NOTICE OF DISCONTINUATION" MUST BE FILED WITH THE IDNR UPON FINAL STABILIZATION OF THE DISTURBED SITE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. ALL PLANS, INSPECTION REPORTS, AND OTHER DOCUMENTS MUST BE RETAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION. THE CONTRACTOR SHALL RETAIN A RECORD COPY AND PROVIDE THE ORIGINAL DOCUMENTS TO THE OWNER UPON PROJECT ACCEPTANCE AND/OR SUBMITTAL OF THE NOTICE OF DISCONTINUATION.
- C. POLLUTION PREVENTION PLAN:**
- THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS A SEPARATE DOCUMENT IN ADDITION TO THESE PLAN DRAWINGS. THE CONTRACTOR SHOULD REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO THE POLLUTION PREVENTION PLAN MADE DURING CONSTRUCTION.
 - THE SWPPP ILLUSTRATES GENERAL MEASURES AND BEST MANAGEMENT PRACTICES (BMP) FOR COMPLIANCE WITH THE PROJECT'S NPDES PERMIT COVERAGE. BMP'S AND EROSION CONTROL MEASURES REQUIRED AS A RESULT OF CONSTRUCTION ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, NOTE AND IMPLEMENT. ADDITIONAL BMP'S FROM THOSE SHOWN ON THE PLAN MAY BE REQUIRED.
 - THE SWPPP AND SITE MAP SHOULD BE EXPEDITIOUSLY REVISED TO REFLECT CONSTRUCTION PROGRESS AND CHANGES AT THE PROJECT SITE.
 - THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL PERMIT AND SWPPP, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING BMP'S UNLESS INFEASIBLE OR NOT APPLICABLE:
 - UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN DISCHARGING FROM BASINS. PROVIDE AND MAINTAIN NATURAL BUFFERS AROUND SURFACE WATERS, DIRECT STORM WATER TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORM WATER INFILTRATION, AND MINIMIZE SOIL COMPACTION.
 - INSTALL PERIMETER AND FINAL SEDIMENT CONTROL MEASURES SUCH AS SILT BARRIERS, DITCH CHECKS, DIVERSION BERMS, OR SEDIMENTATION BASINS DOWNSTREAM OF SOIL DISTURBING ACTIVITIES PRIOR TO SITE CLEARING AND GRADING OPERATIONS.
 - PRESERVE EXISTING VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION AND LIMIT TO A MINIMUM THE TOTAL AREA DISTURBED BY CONSTRUCTION OPERATIONS AT ANY TIME.
 - MAINTAIN ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES IN WORKING ORDER, INCLUDING CLEANING, REPAIRING, REPLACEMENT, AND SEDIMENT REMOVAL THROUGHOUT THE PERMIT PERIOD. CLEAN OR REPLACE SILT CONTROL DEVICES WHEN THE MEASURES HAVE LOST 50% OF THEIR ORIGINAL CAPACITY.
 - INSPECT THE PROJECT AREA AND CONTROL DEVICES (BY QUALIFIED PERSONNEL ASSIGNED BY THE CONTRACTOR) EVERY SEVEN CALENDAR DAYS. RECORD THE FINDINGS OF THESE INSPECTIONS AND ANY RESULTING ACTIONS IN THE SWPPP WITH A COPY SUBMITTED WEEKLY TO THE OWNER OR ENGINEER DURING CONSTRUCTION. REVISE THE SWPPP AND IMPLEMENT ANY RECOMMENDED MEASURES WITHIN 7 DAYS.
 - PREVENT ACCUMULATION OF EARTH AND DEBRIS FROM CONSTRUCTION ACTIVITIES ON ADJOINING PUBLIC OR PRIVATE PROPERTIES, INCLUDING STREETS, DRIVEWAYS, SIDEWALKS, DRAINAGEWAYS, OR UNDERGROUND SEWERS. REMOVE ANY ACCUMULATION OF EARTH OR DEBRIS IMMEDIATELY AND TAKE REMEDIAL ACTIONS FOR FUTURE PREVENTION.
 - INSTALL NECESSARY CONTROL MEASURES SUCH AS SILT BARRIERS, EROSION CONTROL MATS, MULCH, DITCH CHECKS OR RIPRAP AS SOON AS AREAS REACH THEIR FINAL GRADES AND AS CONSTRUCTION OPERATIONS PROGRESS TO ENSURE CONTINUOUS RUNOFF CONTROL. PROVIDE INLET AND OUTLET CONTROL MEASURES AS SOON AS STORM SEWERS ARE INSTALLED.
 - RESPREAD A MINIMUM OF 4 INCHES OF TOPSOIL (INCLUDING TOPSOIL FOUND IN SOD) ON ALL DISTURBED AREAS, EXCEPT WHERE PAVEMENT, BUILDINGS OR OTHER IMPROVEMENTS ARE LOCATED.
 - STABILIZE UNDEVELOPED, DISTURBED AREAS WITH MULCH, TEMPORARY SEED MIX, PERMANENT SEED MIX, OR SOD AS SOON AS PRACTICAL UPON COMPLETION OR DELAY OF GRADING OPERATIONS. INITIATE STABILIZATION MEASURES NO LATER THAN 14 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS FINISHED OR IS PLANNED TO BE DELAYED MORE THAN 21 CALENDAR DAYS.
 - COORDINATE LOCATIONS OF STAGING AREAS WITH THE OWNER AND RECORD IN THE SWPPP. UNLESS NOTED OTHERWISE, STAGING AREAS SHOULD CONTAIN THE FOLLOWING: JOB TRAILERS, FUELING / VEHICLE MAINTENANCE AREA, TEMPORARY SANITARY FACILITIES, MATERIALS STORAGE AREA, CONTROL RUNOFF FACILITY. CONTROL RUNOFF FROM STAGING AREAS WITH DIVERSION BERMS AND/OR SILT BARRIERS AND DIRECT TO A SEDIMENT BASIN OR OTHER CONTROL DEVICE WHERE POSSIBLE. CONCRETE WASHOUT MUST BE CONTAINED ONSITE.
 - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND SITE WASTE PRIOR TO FILING OF THE "NOTICE OF DISCONTINUATION".

NORTHPOINTE VILLAGE CENTER PLAT 1 LOT 2

GRADING AND EROSION CONTROL PLAN

SNYDER & ASSOCIATES, INC.

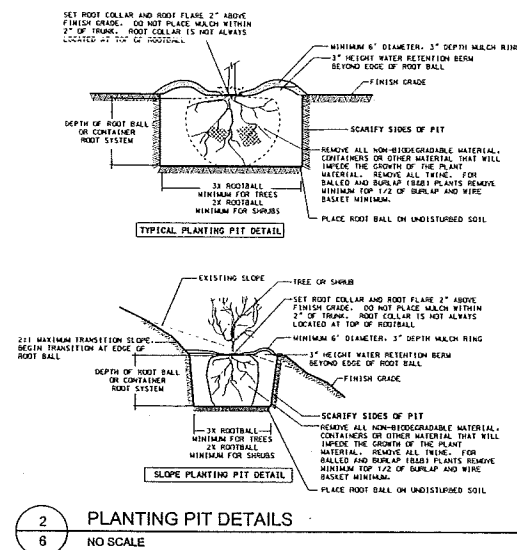
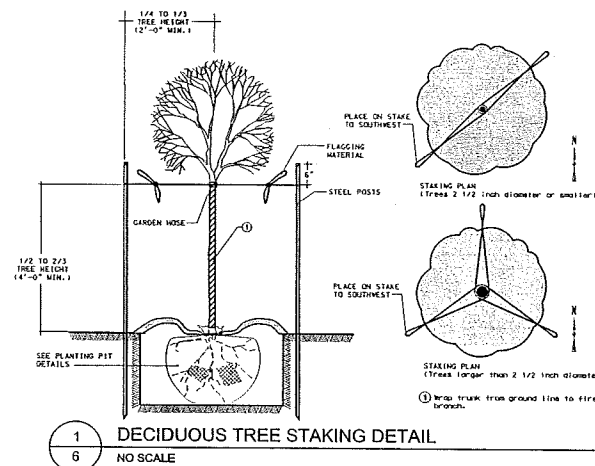
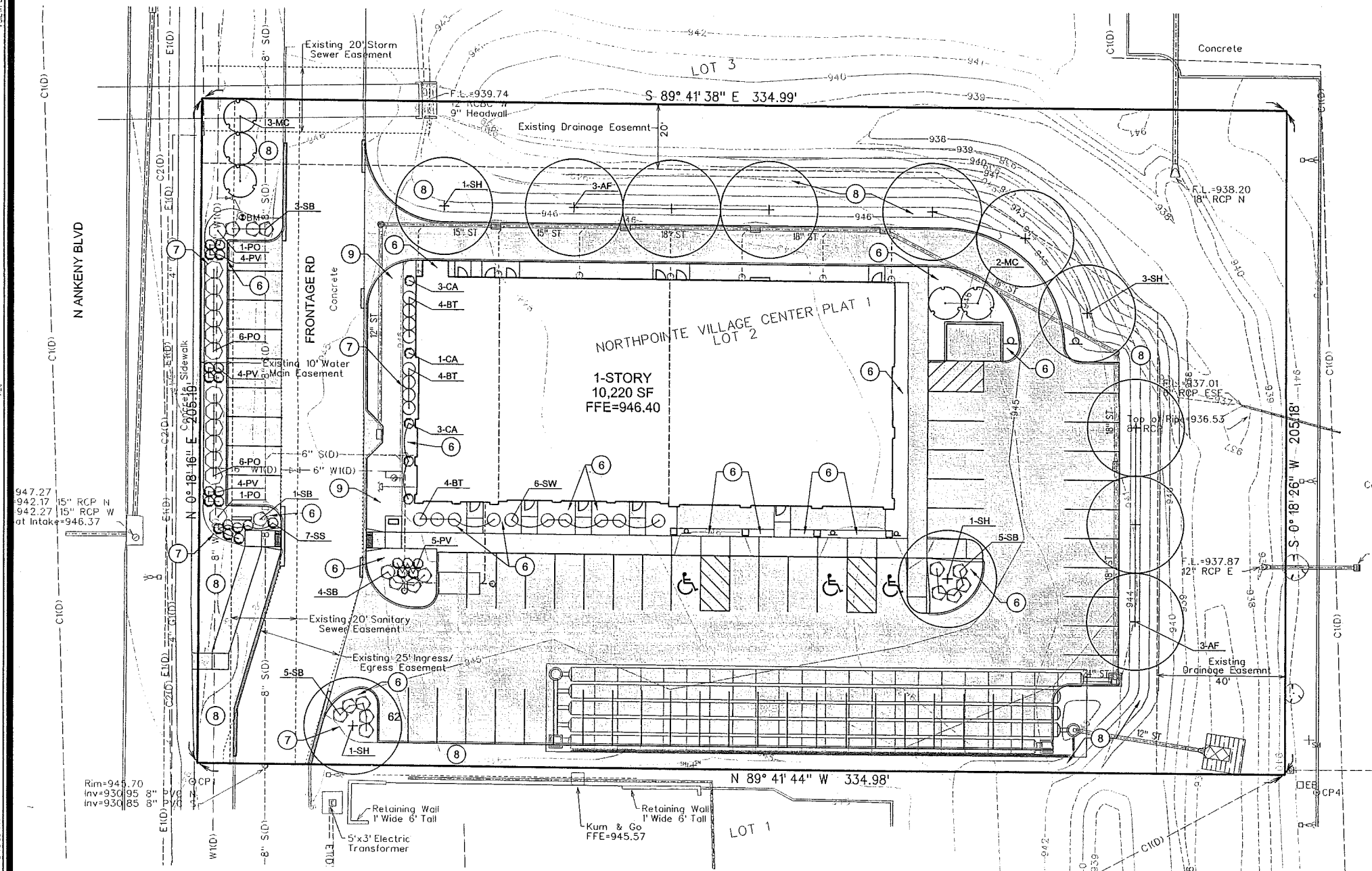


Project No: 1160664

Sheet 4 of 6

MARK	REVISION	DATE	BY
1	REVISED PER CITY COMMENTS	08/24/16	AW
Engineer:	CDD	Checked By:	BKC
Technician:	AW	Date:	07/29/16
Project No:	1160664	Field Bk:	
		Scale:	1"=20'
		Page:	4 of 6

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PLANTING PLAN GENERAL NOTES

1. UTILITY WARNING:
THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEY FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
2. NOTIFY UTILITY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXISTENCE, EXACT LOCATION, AND DEPTH OF ALL UTILITIES. AVOID DAMAGE TO UTILITIES AND SERVICES DURING CONSTRUCTION. ANY DAMAGE DUE TO THE CONTRACTOR'S CARELESSNESS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. COORDINATE AND COOPERATE WITH UTILITY COMPANIES DURING CONSTRUCTION.
3. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS SHOWN IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-LATEST EDITION).
4. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF PROJECT ACCEPTANCE.
5. PROVIDE 3-INCH DEPTH SHREDDED HARDWOOD MULCH AROUND ALL INDIVIDUAL TREE PLANTINGS IN LAWN AREAS TO A MIN. 3-FOOT PERIMETER.
6. PROVIDE 4-INCH DEPTH, 2" RIVER ROCK MULCH WITH WEED BARRIER FABRIC UNDERLAYMENT IN ALL PLANTING BEDS, UNLESS OTHERWISE DIRECTED BY OWNER.
7. PROVIDE VERTICAL CUT EDGE TO A DEPTH OF 4" AT ALL PLANTING BEDS TO RECEIVE RIVER ROCK MULCH ADJACENT TO LAWN/SEEDING AREAS, UNLESS OTHERWISE DIRECTED BY OWNER.
8. CONTRACTOR TO SEED ALL AREAS DISTURBED BY CONSTRUCTION AND NOT SPECIFIED OTHERWISE WITH TYPE 1, PERMANENT LAWN MIX. INSTALL PER SPECIFIED SEED DATES AND SPECIFICATIONS.
9. CONTRACTOR TO SOD THIS AREA PER SUDAS SPECIFICATIONS.
10. TREE DRAINAGE WELL REQUIRED FOR TREES WHERE IMPERVIOUS SOILS ARE FOUND DURING INSTALLATION AS APPROVED BY ENGINEER.

LANDSCAPE REQUIREMENTS

LANDSCAPE REQUIREMENTS AND CALCULATIONS:
(AS PER CITY OF ANKENY SITE PLAN OPEN SPACE AND LANDSCAPING
REQUIREMENTS)

OPEN SPACE REQUIREMENTS:
68,742 SF OVERALL PROPERTY X 20% MIN. OPEN SPACE = 13,748 SF OPEN SPACE REQ'D
TOTAL HARD SURFACE (DRIVES, PARKING AND BUILDINGS) 36,909 SF
31,833 SF (TOTAL OPEN SPACE PROVIDED 46.3%)

OPEN SPACE LANDSCAPE REQUIREMENTS:
13,748 SF/ 3000SF = 4.58 PLANT UNITS REQ'D.

4.58 PU X 2 TREES = 9.16 TREES REQ'D, (9.5 PROVIDED)
 ---- (4.5) TREES PROVIDED WITHIN 15' OF PAVED
 AREA ON ONE SIDE (COUNTED AT 50%), TOTAL COUNTED 5
 ---- (5) TREES PROVIDED (COUNTED AT 100%).

4.58 PU X 6 SHRUBS = 27.48 SHRUBS REQ'D (28 PROVIDED)

PAVEMENT SHADING REQUIREMENTS FOR NEW PAVEMENT:
 26,359 SF PAVEMENT X 20% = 5,272 SF
 5,272 / 706 SF = 7.46 OVERTORY TREES REQ'D (7.5 PROVIDED)
 ---- (4.5) PAVEMENT OVERTORY TREES PROVIDED WITHIN 15' OF PAVED
 AREA ON ONE SIDE (COUNTED AT 50%). TOTAL COUNTED 9
 ---- (3) PAVEMENT OVERTORY TREES PROVIDED WITHIN 15' OF PAVED
 AREA ON 2 OR MORE SIDES (COUNTED AT 100%).
 ---- 5,595 SF PAVEMENT SHADING PROVIDED (7.5 X 706)

NO BUFFER YARDS REQUIRED.

HEADLIGHT SCREENING PROVIDED ALONG N ANKENY BOULEVARD IS NOT INCLUDED IN OPEN SPACE SHRUB REQUIREMENT.

PLANT MATERIAL SCHEDULE

		KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
TREES	A	Acer	<i>A. freemanii</i> 'Norma'	WARMO MAPLE	15' CAL	B&B
	OT		<i>Ostrya</i> <i>bicincta</i> 'Skycole'	SKYLINE HONEYLOCUST	15' CAL	B&B
	MC		<i>Malus</i> 'Camzant' CAMELOT	CAMELOT CRABAPPLE	7' CAL	B&B
SHRUBS/GRASSES/ TWO SEEDS	BT		<i>Berberis thunbergii</i> f. <i>atropurpurea</i> 'Concorde'	CONCORDE BARBERRY	18" HT., xx	
	CA		<i>Calamagrostis canadensis</i>	KARL FOERSTER GRASS	36" HT.	
	PO		<i>Physocarpus opulifolius</i> 'Donna May'	LITTLE DEER, WINEBAR	36" HT.	
	PV		<i>Panicum virgatum</i> 'Northwind'	NORTHWIND SWITCH GRASS	36" HT.	
	GB		<i>Spiraea betulifolia</i> 'Tor'	TOR BRIDLEW, SPIREA	36" HT.	
	SW		<i>Spiraea japonica</i> 'Waburne'	WABIC CARPET SPIREA	18" HT., xx	
	SS		<i>Sesleria autumnalis</i>	AUTUMN MOOR GRASS	8" HT., xx	

IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT QUANTITIES LISTED AND THE PLAN AMOUNTS, THE PLAN QUANTITIES SHALL PREVAIL.

